NORTH RIVER CANAL SYSTEM
Located in the canal path running parallel
to and on the east side of the Maury
(North) River on the west side of the
town of
Buena Vista
Rockbridge County
Virginia

HAER No. VA-61

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
U.S. Custom House
200 Chestnut Street
Philadelphia, PA 19106

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HISTORIC AMERICAN ENGINEERING RECORD

NORTH RIVER CANAL SYSTEM HAER No. VA-61

Location: Located in the canal path running parallel to and on the east side of the Maury (North) River on the west side of the town of Buena Vista, Rockbridge County, Virginia.

UTM: Indian Gap Run Aqueduct 17.644450.4176600

Pedlar Gap Run Aqueduct 17.644060.4176290

Chalk Mine Run Aqueduct 17.644540.4178160

Lock Four 17.643840.4176160

Lock Five 17.643620.4176030

Quad: Buena Vista, Virginia

Date of Construction: 1851-1860

Present Owner: CSX Transportation, Inc.
Real Estate Division
500 Water Street, SC J350
Jacksonville, Florida 32203

Present Use: Canal abandoned. The abutments for the Indian Gap Run, Pedlar Gap Run, and Chalk Mine Run aqueducts were reused to support railroad bridges during the 1880s. Much of the canal tow path serves for this now abandoned rail line.

Significance: The North River Navigation represents a rare example of stone lock construction in Virginia, exhibiting remarkable similarities to earlier structures of the Potomac Canal at Great Falls, Virginia. It was, moreover, an unusually late example of canal building, erected in an era when these systems were being rapidly superseded by railroads.

Part of a state-sponsored project to connect the James and Ohio Rivers, the canal extended navigation northward from the James River to Lexington, Virginia, transforming the area's economy. Furthermore, the presence of the canal seems to have been an important factor in determining the trajectory of the railroad which, in the 1880s, superseded it, incorporating the old path towpath and aqueduct abutments in its construction.

It was over the North River Navigation that General Stonewall Jackson's body was conveyed after his death in May of 1863 from wounds received at the Battle of Chancellorsville. One of the best preserved canal systems in the state, these features reveals much about lock and aqueduct construction seen only in fragments elsewhere. Additionally, the technology used here is much the same as that found more than a half century earlier and attests to the soundness of design adopted by early canal engineers in Virginia.

Project Information:

This documentation was undertaken in 1991 in accordance with the Memorandum of Agreement by the Army Corps of Engineers, Norfolk District, to mitigate the affects of the Buena Vista floodwall/levee project. Charles M. Downing was responsible for the historical research, and Donald W. Linebaugh provided administrative oversight. Downing and Linebaugh are employees of the Center for Archaeological Research, College of William and Mary. Willie Graham and Mark R. Wenger, consultants to the Center for Archaeological Research, undertook the physical analysis, recordation, and photographic documentation of the canal system. The Center for Archaeological Research subcontracted with Telemark, Inc. to perform this work for the Corps of Engineers.

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Within the project area five architecturally significant features were identified, all parts of the North River Navigation. Built hetween 1851 and 1860, this project ultimately provided a transportation link hetween Lexington, Virginia and the upper James River. Among the sites investigated were the remains of three aqueducts that once carried the canal over Chalk Mine Run, Indian Gap Run, and Pedlar Gap Run. Further downstream are fragmentary remains of two nearly identical stone locks. Of these, Lock No. 5 is the more complete. Along with the Ben Salem Lock (which lies outside the project area), Lock No. 5 provided essential information for the interpretation of Lock No. 4. Each of the aqueduct and lock structures was huilt of locally quarried limestone. None of their original timher elements survive.

In January 1785, the Virginia Assemhly enacted legislation which sanctioned the creation of a company to improve navigation on the James River west of Richmond. By 1789, the James River Company had completed a canal circumventing the falls of the James to a point seven miles ahove Richmond. In 1816, the river had been improved, largely through the creation of sluices, all the way to Crow's Ferry, over 200 miles up river from Richmond. During this period most river cargo on the upper James was carried on bateaux, long, narrow canoe-like boats which hoatmen guided or steered with poles. In 1820, the financially troubled James River Company ceased to operate and was later taken over by the state legislature (Dunaway 1922:23, 29, 38, 47).

In 1835, the state-controlled James River and Kanawha Company (JR&K) was capitalized in the amount of $12,000,000 and the process of huilding a canal system hetween Richmond and the Ohio River was hegun (Withrow Scarpbooks n.d., Vol.IX:41). By 1840, the canal had heen completed as far as Lynchhurg and by 1850 to the mouth of the North River (Trout 1966:4). The idea of improving the North River for commercial navigation had long been supported in Rockhridge County. The completion of the James River and Kananwha Canal to the North River perhaps made the undertaking appear viable and thus attractive to a sufficient number of investors for the first time.

The first preparatory step toward improving the North River was taken long before the canalization of the upper James had started in earnest. In 1818, the Virginia Board of Puhlic Works commissioned a survey of the North River from its mouth to Winter's Dam, a point fifteen miles up river from Lexington. Thomas Moore, the principal engineer, oversaw the production of a plan and profile of the river. Moore's survey treated only the main course of the river and no cultural features appear on either the plans or profiles (Moore 1818). By the time the North River improvement was being seriously dehated and planned, Moore's work had heen shelved and largely forgotten. In 1843, James Brown, the second auditor of the Board of Public Works, wrote to Samuel McDowell Reid, the court clerk for Rockhridge County and an investor in and a moving force hehind the North River project. "I find no report of Moore's," Brown confessed, "further than a mere notice... There appear to be no notes of the survey or map of the river." (Moore's 1818 plan and profile of the river have since been found and are on file at the Virginia State Archives.) Brown was able to send Reid a copy of W.B. Thompson's 1838 survey report of the North River. Brown added that "The notes of Mr. Thompson and a map corresponding therewith (hut without a profile) are deposited in this office" (Brown to Reid, 28 July 1843, Reid Family Papers: Folder 027-3).

Regrettably, the map to which Brown alluded does not appear to have survived and the field notes are missing. During the research for the floodwall project an empty folder marked "field notes, 80 pp." was found in the same hox of Board of Puhlic Works records as Thompson's compass hooks. It is hoped that Thompson's field notes have only heen temporarily misplaced. A copy of a hrief report to the Board of Puhlic Works in which Thompson summarized his survey and made recommendations regarding the construction and general plan of the navigation system can be found in the Reid Family Papers in the Special Collections section of the Washington and Lee University Lihrary (Reid Family Papers n.d.:Folder 027-9).

In his report, Thompson advocated Lexington as the northern terminus of the navigation system. His opinion was that there was "no advantage" in continuing the canal past Lexington hecause of the convergence of county roads there. Thompson also pointed out that the improvement could not consist entirely of a canal.

He conceded that canalizing the entire river would be "a safer improvement" being "entirely out of the reach of freshets," but there were other factors to consider. First, the cliffs along the river would make the construction of a 20-mile canal prohibitively expensive and thus "incommensurate with the object attained." Secondly, after noting the number of mills along the river, he argued that a complete dam and canal system "would impair and in places entirely destroy the water power of the river now profitably employed." Finally, Thompson proposed that a section of canal he constructed entirely through Hart's Bottom "from the last point of the falls to the head of Edmondson's Pond" (Thompson 1838, Reid Family Papers: Folder 027-9).

W.B. Thompson's "Compass Book No. 2" from his North River survey comprises the earliest rendering of the present floodwall project area which depicts cultural features. Four pages of sketches show the proposed canal right-of-way as it passed through the floodwall project area (Thompson 1837:15-21). Thompson conducted his survey as he traveled down river. The first of the four sketches shows the area around Chalk Mine Run. Two mill dams designated as "Glasgow's" were shown. Both dams were up river from the project area, but the saw mill with which they were apparently associated was located 800 feet downstream from Chalk Mine Run (Thompson 1837:15).

In a 1990 archaeological survey report of an adjacent site, the authors suggested that the mill race leading off from the "old" dam shown on the Thompson sketch may have been created from an existing channel that ran parallel to the river. Chalk Mine Run may have emptied into this channel. They further suggested that Glasgow had a passage cut across the long, narrow island formed by the mill race and river through which Chalk Mine Run could flow into the main course of the river (Van Horn, et al. 1990:20-21). Thompson's survey shows that a road running parallel with Chalk Mine Run crossed both the mill race the cut through the island. The survey line and, presumably, eventually the canal itself followed the road closely. An 1881 railroad plat of the Moomaw property (the owner after Glasgow) shows no sign of the mill race and the "mills" were now located upriver of Chalk Mine Run rather than below it as depicted on the Thompson sketch (RCR DB SS:497).

The 1881 mills appear to have been powered by the Chalk Mine Run aqueduct. It seems likely that 1837 mill race was eradicated or perhaps incorporated into the canal. The saw mill shown in the 1837 sketch may have been replaced shortly after Thompson's survey. From the time building assessments were recorded in 1821 until 1841 the Glasgow property had been charged with approximately $350 in buildings (RCR Lbs 1821-1841). In 1842, Glasgow's building assessment jumped to $1,500 (RCR LB 1842).

Thompson sketched the five buildings which comprised the Hart's Bottom farm complex lying on the south side of Indian Gap Run. Apparently an intermittent channel ran parallel with the river across Hart's Bottom carrying the spillover from the slackwater created by Paxton's mill dam into Indian Gap Run. From the 1837 sketch it does not appear that there was a mill on the Hart's Bottom side of the river. Paxton's mill can be seen on the opposite bank sheltered by a large island created by the mill race (Thompson 1837:19). One final pre-canal feature within the project area shown in the Thompson sketches was a bridge over the river about 200 feet below the mouth of "Robinson's Gap" (now called Pedlar Gap Run). The site of this bridge would be about 400 feet upriver from the remains of Lock No. 4 (Thompson 1837:21).

The North River Navigation Company (NRNC) was initially chartered by the Virginia Assembly in 1840 "to improve the North River from its confluence with the James to a point at or near the town of Lexington." The charter lapsed within a few years as the legislature had stipulated that work was to begin on the project within three years and be completed ten years later. In February 1850, the legislature revived the charter and allowed the company five years to begin the work and ten years to complete it (RCR, Chancery File No. 110, Bundle No. 367).

In the autumn of 1850, as the NRNC prepared to begin construction of the system, the stockholders were engaged in debating the expense of construction materials and the sequence in which the various locks and dams were to be built. The company's stockholders voted in favor of building the 23 canal locks along the 20-

mile navigation system of wood rather than masonry. This would have resulted in savings of over $30,000. Many stockholders also favored economizing by reducing the size of the locks. There was also a movement to begin construction of the various canal features simultaneously along the navigation route (Ruff to Brown, October 1 and December 31, 1850, Board of Public Works Records).

Jacob M. Ruff, the company secretary and later its president, opposed all three of the stockholders's proposals. In a letter to James Brown of the Board of Public Works, Ruff made a persuasive argument. Ruff favored using "heavy rubble masonry well laid in good hydraulic cement" rather than lumber in building the locks. He argued that the extra expense in the initial construction would eliminate continual repairs in the future. Ruff also supported a sequential construction plan in which construction crews would work their way up river toward Lexington. Perhaps sensing the financial difficulties that lay ahead for the company, he felt that the "best and wisest policy would be to put only to contract so much as our means will complete, thereby bringing into usefulness the amount of our expenditure" (Ruff to Brown, October 1 and December 31, 1850, Board of Public Works Records).

Ruff also endorsed building the locks as close to the scale of the James River and Kanawha as possible. He cited the company engineer who maintained that the "savings would not be in ratio to the reduction of the size of the locks." Various stockholders had proposed reducing the size of the locks from one-quarter to one-half the size specified in the original proposal. "Our canal" Ruff wrote, "is now as small as we can safely maintain it. It is to be 4 feet deep, 20 feet wide at bottom, 35 feet at waterline, and the locks 100 feet long." Smaller locks would also mean high transhipment costs as goods were transferred to the James River and Kanawha Canal. Higher costs would ultimately "tend to drive the trade to other channels of transportation" (Ruff to Brown, October 1 and December 31, 1850, Board of Public Works Records). With a few minor concessions, Ruff's plan for the construction of the navigation system was eventually executed.

In 1851, construction started. As Ruff had suggested the work was undertaken in segments from the James River northward toward Lexington. Initially, contracts for individual sections were generally awarded to local landowners. Problems soon arose. These local contractors often lacked engineering experience and had insufficient capital to see the project through. The NRNC stipulated that the work had to be completed and approved before payment was made. Sometimes jobs had to be turned over to other contractors or to the company itself for completion (Trout 1966:6,9).

The JR&K drew up a list of specifications which contractors were required to sign before proceeding with their work. The document itself does not bear a date, but the copy at the Virginia State Library is filed under the year "1859" (JR&K 1859). It is not known if these specifications originated in 1851 at the beginning of the construction of the system, or if in the course of the project the various contractors lack of experience noted above necessitated such a detailed agreement. The fact that the document is filed with other published papers and reports of the JR&K suggests that the latter may have been the case. However, the NRNC may have used a similar contract before 1857 when the JR&K assumed control of the project and ownership of the NRNC. If these specifications represent a new policy adopted in 1859, then they may have less relevance to the locks in the floodwall project area than to those up river near Lexington. The locks within the floodwall project area appear to have been completed for the most part by late 1857 (Lorraine 1857:374).

The 1859 specifications cover all aspects of lock construction from excavating the pit and laying the foundations, through the procedures and materials for the walls, hollow quoins, and coping. (The architectural design and significance of the locks and aqueducts located within the project area will be discussed at length in the architectural analysis section of this report). The company reserved the right to make separate contracts "for the construction and fixing of the Lock Gates," which suggests that artisans from outside the Rockbridge County area may have been brought in to perform the more technical aspects of the project when warranted (JR&K 1859:1-3).

Most of the materials used in the project were probably obtained locally. The white oak and pine required in the 1859 document for use in the foundation, breast walls, and mitre sills of the lock would have been abundant given the number of nearby saw mills. When the North River improvement was first proposed, local residents were encouraged to develop "the necessary resources" for its construction. Limestone kilns and pulverizing mills in Lexington were engaged in making hydraulic cement by the late 1830s (Gilliam 1982:116). The JR&K stipulated that the company was responsible for providing contractors with cement. This probably allowed the company to exercise a measure of quality control. As it may have been one of the more expensive materials used, the company likely purchased large amounts of the cement and was able to obtain it at a cheaper price than individual contractors. Contractors were responsible for providing their own stone, which suggests that it may have been obtained from the nearest quarry. If a contractor could not agree with a quarry owner on the price of stone, it was within the chartered authority of the company to apply to have the material condemned, though the contractor was responsible for legal and court costs (JR&K 1859:3). The North River Navigation structures differ from most other canals in Virginia as they were constructed of local limestone instead of granite or wood (Trout n.d.: 4).

A mixed work force of artisans and laborers was employed on the system. Carpenters and stonemasons were predominant in the skilled labor category (Trout 1966:9). Whites, free blacks, and slaves, as well as convicts worked as laborers at various times. It appears that convict labor was resorted to after the JR&K took over the faltering NRNC in 1857. An agreement had been made with Virginia's governor in this regard. In September 1858, eleven men were employed as "overseers and guards of convicts" on the project (JR&K 1858: BPW Records, Entry 84, Box 204). In October 1858, Samuel McDowell Reid met with Adam Lusk, the engineer in charge of construction. Lusk gave "a good account of the free labor," and by omission hinted at his dissatisfaction with the convict force and perhaps the slaves as well (Reid to Ellis, October 9, 1858, Reid Family Papers: Folder 027-5). In late 1858, JR&K president Thomas H. Ellis apologized to Samuel McDowell Reid for the company's inability to pay the laborer's wages. In his response, Reid suggested, among other expedients, the use of "free negroes" to complete the project. Free blacks may not have been used in large numbers up to that point (Ellis to Reid November 27, 1858 and Reid to Ellis, December 2,1858, Reid Family Papers: Folder 027-5).

The NRNC had complete control over the construction of the system for only the first two years. By 1853, the JR&K had been authorized by the state legislature to aid the NRNC in the completion of its works. By late 1857, the JR&K had taken over the smaller company although the latter's property was not legally transferred until 1881 (RCR, Chancery File No. 110, Bundle No. 367). In October 157, Edward Lorraine, the JR&K chief engineer submitted a brief report on the newly acquired North River improvement. He noted that the segment of canal which passed through the present site of Buena Vista was 2.69 miles long. The Chalk Miue Run aqueduct was "nearly complete" except the superstructure. It had a span of 140 feet (Lorraine 1857:374).

The numbers assigned to individual locks on the North River Navigation were altered many times during its period of operation. Through his numerous writings on the North River Navigation, William E. Trout has in effect provided a standardized number system that will be used throughout this report. The lock numbers used in the following description of Lorraine's report are those used by Dr. Trout (Trout 1966:appendix). According to Lorraine's 1857 report, the "mechanical work" on Lock No. 3, situated about 850 feet downriver from the aqueduct, had been completed as had that of the other two locks within the general project area. Lock No. 3 provided 8 feet of lift. From Lock No. 3 it was "one mile and 1,120 feet" to Lock No. 4, which provided another 8 foot lift. Lock No. 5 was another 1,000 feet south down the canal and had a lift of 7.6 feet. The aqueducts across Indian Gap and Pedlar Gap Runs were far smaller than the one at Chalk Mine Run having spans of 20 and 10 feet respectively. Lorraine also indicated that there were four bridges and one culvert on this stretch of the canal although this includes the entire 2.69-miles rather than the segment contained within the project area. Lorraine noted that except for the locks, the "rest of the mechanical work [had] not been commenced (Lorraine 1857:374). Although Lorraine gave no distances between the smaller aqueducts, the Indian Gap and Pedlar Gap aqueducts were 1,650 feet apart.

As work progressed up the river during tbe 1850s, each section of the project enjoyed a brief period serving as the terminus of the system. By 1858, Moomaw's Landing, as the Glasgow property had become known, marked the extent to which the canal had been completed. As each section was finished, a landing and warebouse would be constructed and it became a short-lived center of local trade (Trout 1966:6). Thus, Hart's Bottom would have experienced a very temporary period of increased economic activity during the years 1858-59.

Tbe navigation system was finally completed as far as Lexington in 1860, on the eve of the Civil War. The North River system as well as the James River canal continued to operate during tbe war. As has often been noted, the remains of Stonewall Jackson were brought to Lexington for burial via the system in 1863. In 1864, Union cavalry attached to General David Hunter's force in the Shenandoah Valley conducted a raid down the North River after seizing Lexington (OR Series 1, Vol.37, Pt. 1:97). A JR&K report published in late 1865 stated that the Union cavalry had passed through Hart's Bottom on June 10, 1864 and had burned a carpenter's shop, along with tools, timber, and provisions (Teal and Armitage 1950:731). The buildings and provisions destroyed were canal company property located at Lock No. 5, the southern terminus of the present project area (Trout 1966:11). There is no indication either in the canal company report or the Official Records of the Civil War that the locks or aqueducts within the project area were damaged during the Union raid.

There are two maps showing the project area during the 1860s. These are the only two maps known which depict the project area during tbe period when the canal was actually in operation. Both provide only a cursory illustration of the canal and only one includes canal features. It should be noted that it was not the intention of either cartographer to accurately illustrate the canal. Its inclusion on both maps is strictly incidental. The earliest, an 1864 Gilmer map of Rockingham County, shows the route of the canal and a few non-related structures in the area. On the Gilmer map the channel north of Chalk Mine Run Aqueduct is suggested by the fork in the waterway near the house marked "Mrs. R. Glasgow." Mrs. Glasgow was presumahly tbe widow of the man who owned the mill and dams shown in the 1837 Thompson sketcbes (Gilmer 1864). The Gilmer map suggests that the Moomaw family had yet to acquire tbe Glasgow property. The stream shown entering the river across and just up river from Paxton's mill would appear to be an error. On no other map consulted for this project, whether historic or contemporary, is a stream shown in that location. "Major's mill" marks the location of the Indian Gap Run aqueduct and the next tributary down river is Pedlar Run Gap. D.E. Laird's was the site of Lock No. 6 and is outside the project area (Gilmer 1864).

The 1868 Oltmanns map of Hart's Bottom shows a few more canal features (Oltmanns 1868). The aqueducts are suggested simply by the fact that the canal is shown crossing Pedlar's Creek and Trout Run (now Indian Gap Run). The Chalk Mine Run aqueduct would be "off the map" to the left. Unless the course of the river is depicted very inaccurately, Oltmanns omitted Lock No. 4 from the map. The canal lock designated as "19" would appear to be Lock No. 5 and "22" to be Lock No. 6 or Laird's Lock as it was locally known. In actuality, from the Pedlar Gap Run aqueduct to Lock No. 4 was a distance of only 650 feet. From Lock No. 4 to No. 5 was another 1,000 feet, while Lock No. 6, which connected the canal with the river below Hart's Bottom, was one-half mile below Lock No. 5 (Lorraine 1857:374). The lock which Oltmanns labelled "22" does not accurately depict either Lock No. 5 or No. 6. If the figure labelled "19" was meant by Oltmanns to represent Lock No. 5, then it may indicate that the building and supply yard destroyed by Union troops had not been replaced as of four years later.

Far more damaging to the North River Navigation than the effects of the war were two devastating floods which occurred in 1870 and 1877. The latter was the more severe of the two. In December 1877, the Rockingham County board of supervisors and the mayor and town council of Lexington estimated the canal system on the North River required $100,000 in improvements. This group was opposed to the "destruction of the canal, in order that the Railway be located upon its ruins" (Rockingham Board of Supervisors, 1877). The local officials who supported this "concurrent memorial" in favor of maintaining the canal were also probably stockholders in the JR&K. Sadly for them, the age of canals was rapidly coming to an end and in March 1881,

the Richmond and Allegheny Railroad Company purchased the real estate and facilities of the JR&K on the North River (RCR, Chancery File No. 110, Bundle No. 367).

In August 1882, the Shenandoah Valley Railroad acquired the use of a portion of the Richmond and Allegheny's right of way in the vicinity of Hart's Bottom. The Shenandoah Valley company agreed to put the canal "in as good condition as for the uses and purposes of navigation, as they were prior to the construction of the S.V.R.R. provided the Richmond and Allegheny should call upon the S.V.R.R. to do so" (RCR DB UU:420). This stipulation was prompted by the fact that the Richmond and Allegheny's title to the old canal property had heen called into question (see RCR, Chancery File No. 110, Bundle No. 367). Most significantly, the language in the agreement suggests that within the first year of the railroad's presence along Hart's Bottom the canal may already have heen rendered unserviceable in some areas. A plat accompanying the agreement shows that the tracks of the two railroads had apparently not impacted the canal at least in the vicinity of Locks No. 4 and No. 5 and the Pedlar Gap Run and Indian Gap Run aqueducts (RCR DB UU:428). In the 1882 plat the top drawing shows Locks No. 4 and No. 5 and the Pedlar Gap Run Aqueduct. The bottom drawing shows the Indian Gap Run aqueduct. Both drawings use the Laird's station crossing as a reference point. This railway stop was rather confusingly called "Loch Laird." It should not be confused with "Laird's Lock", the name frequently given to Lock No. 6 on the canal. It appears that the railway designation of "Loch Laird" was changed from the crossing of the two railroads near Lock No. 6 to a station stop near Pedlar Run Gap during the early 1880s.

In 1886, the Richmond and Allegheny produced a detailed "property map" of the Lexington Branch of the railroad. This hranch was built along the property that the railroad had acquired from the JR&K. At the point where the Shenandoah Valley and Richmond and Allegheny railroads crossed, a "hand" appears to signify that Loch Laird had heen moved. The lock and dam shown along the river on this drawing are Laird's Lock and Dam, or Lock No. 6 (Richmond and Allegheny Railroad 1886:section 184). The next section of the map shows Locks No. 4 and No. 5 as well as the Pedlar Gap Aqueduct. The new location of the "Loch Laird" railway stop is shown situated hetween the aqueduct and Lock No. 4. From the hridges depicted running over the two roads it appears that this portion of the canal had not yet heen filled in (Richmond and Allegheny Railroad 1886: sections 184 and 185). Further up river the Chalk Mine Run Aqueduct and Lock No. 3 can he seen on the map (Richmond and Allegheny Railroad 1886:186).

About 1890 an industrial and commercial boom in the region resulted in the rapid development of the city of Buena Vista. In the early 1890s, the Buena Vista Company puhlished a promotional pamphlet extolling the economic opportunity to he found in the new city. Included in this leaflet was a "perspective map" of Buena Vista. The map strongly suggests that the canal bed had heen filled from ahout 18th Street in Buena Vista at least as far as Pedlar Gap Run (Buena Vista Company, ca. 1891). The canal can he seen clearly from Chalk Mine Run down to about 18th Street. William E. Trout suggests that the upper portion of the canal was converted for industrial use while the lower section was filled in to accommodate the railroad. Consequently, the portion of the filled bed below 18th Street may have a higher potential for containing the remains of canal boats (Trout 1990: personal communication). The filling of the canal bed below 18th Street almost certainly occurred hetween 1886 and 1891.

About 1890, the Chesapeake and Ohio Railway (C&O) purchased the property of the hankrupt Richmond and Allegheny (Richmond and Allegheny 1889, BPW Records, Entry 143, Box 237). In 1916, the C&O prepared a series of maps which not only show the canal features within the project area, but the extensive amount of industrial development which occurred during the preceding quarter century. Beginning from the "top" of the project area, the C&O map suggests that the Chalk Mine Run Aqueduct had been converted into a railroad bridge. Ahout 900 feet down from the old aqueduct, Lock No. 3 was still apparently visihle (C&O 1916: Sheet 7, Part 2). At this writing, Lock No. 3 is "barely visible above ground," but most of it may he intact below the surface (Trout n.d.:6). On parts 1 and 2 of sheet 7 of the C&O map, an area can be seen designated as the "Old Canal Bed" (C&O 1916: Sheet 7, Parts 1 and 2). This area gradually narrows until it disappears roughly in the same fashion as depicted on the 1890s perspective map of Buena Vista. Further down river at

Indian Run Gap (labelled as "Robinson's Branch"), the railroad surveyor identified the canal feature as a "stone aqueduct." The Pedlar Gap Run aqueduct is shown adjacent to the Loch Laird railway stop and Locks No. 4 and No. 5 can be seen further down. This portion of the map appears to confirm that this portion of the canal had been filled in (C&O 1916: Sheet 6, Parts 2 and 3).

Subsequent 20th-century industrial development has apparently resulted in more filling of the upper part of the canal between Chalk Mine Run and Indian Gap Run. Segments of this portion of the canal have been incorporated into industrial activity. The construction of the railroad necessitated the removal of the wooden troughs which served to carry the canal bed over the three aqueducts within the project area. The lower part of the canal seems to have been used as a railroad yard rather than an industrial area, with the result that Locks No. 4 and No. 5 have been fairly well preserved (Trout n.d.:5).

The North River Navigation represents a rare example of stone lock construction in Virginia, most locks of the period having been built of wood. Originally, these locks were also to have been fabricated in wood, a decision overridden by Jacob M. Ruff, secretary and later president of tbe North River Navigation Company (Ruff to Brown, Oct. 1 and Dec. 31, 1850, Board of Public Works). And while most stone locks in the state are built of granite, these are of locally quarried limestone. Certain details of surviving stonework--the hollow quoining for the gates and the method of securing the upper gate pintles to the coping of the quoins--exhibit striking parallels with earlier stone locks of the Potomack Canal at Great Falls, Virginia. The North River Navigation also represents an exceedingly late canal project, erected in the twilight period of American canals, an era when these systems, especially in the north, were being rapidly superseded by railroads.

Part of a state-sponsored project to connect the James and Ohio Rivers, the canal extended navigation northward from the James River to Lexington, Virginia, linking the region's farms and quarries to lucrative eastern markets. The resulting prosperity of the area allowed many Lexington residents to upgrade their properties, and enabled the city to undertake an immense public works project, lowering streets in the center of town as much as eight feet. In short, the canal transformed the life of the area (Lyle 1977:33-36).

Within the limits of the project area, the presence of the canal seems to have been an important factor in determining the trajectory of the railroad which in the 1880s, replaced it, incorporating the old towpath and aqueduct abutments in its construction.

Finally, it was over the North River Navigation that General Stonewall Jackson's body was conveyed after his death in May of 1863 from wounds received at the Battle of Chancellorsville.

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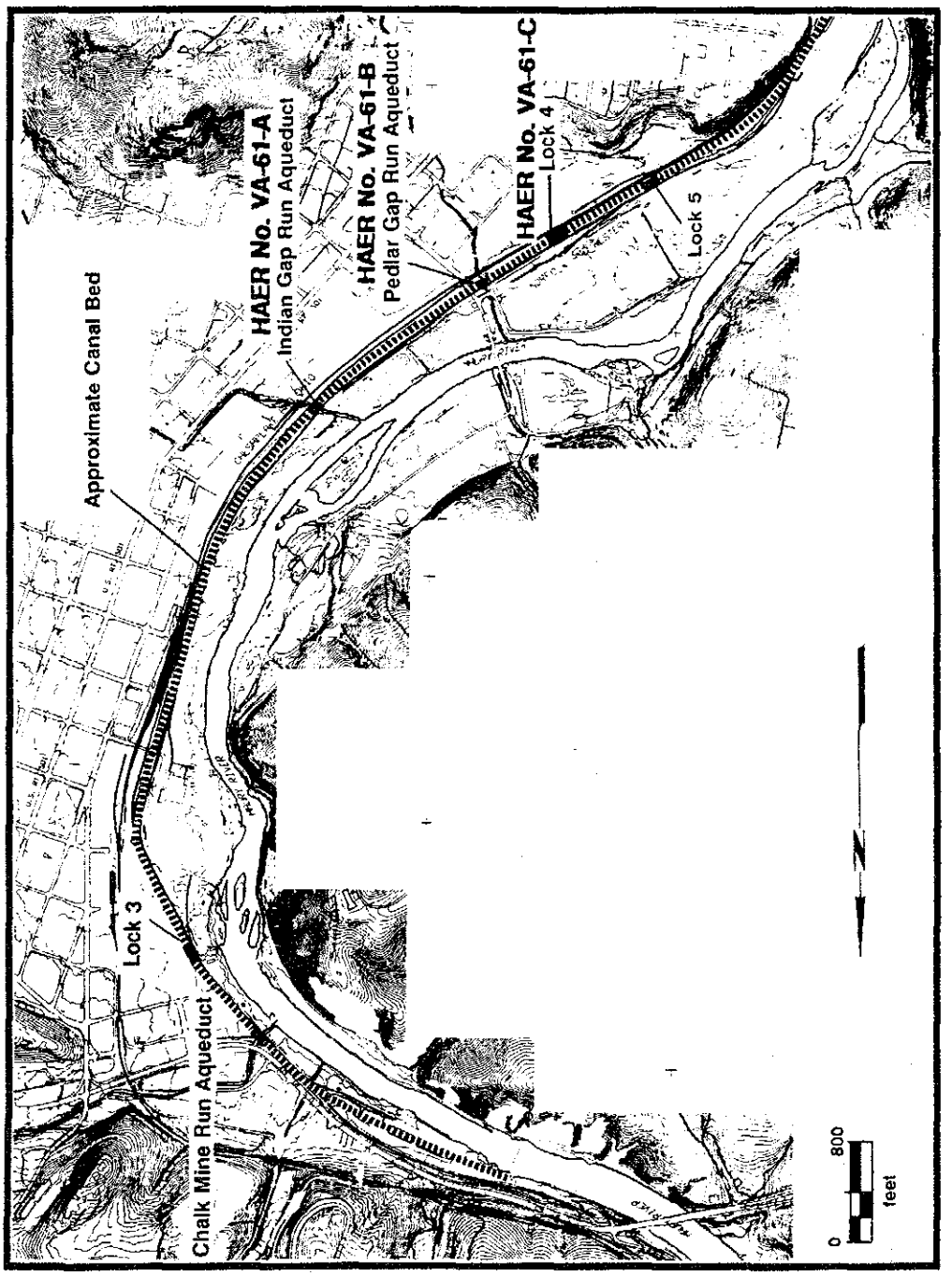
Site Plan


Approximate Canal Bed
HAER No. VA-61-A
Indian Gap Run Aqueduct
HAER No. VA-61-B
Pedlar Gap Run Aqueduct
HAER No. VA-61-C
Lock 4
Lock 5
Lock 3
Chalk Mine Run Aqueduct
0
800
feet